



California Regional Water Quality Control Board

Los Angeles Region

Winston H. Hickox
Secretary for
Environmental
Protection

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful



Gray Davis
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.swrcb.ca.gov/rwqcb4>

303

April 2, 2003

Brian Mossman
Boeing Realty Corporation
3855 Lakewood Boulevard
Building 1A MCD001-0097
Long Beach, CA 90846

BUILDING 2 SOIL VAPOR EXTRACTION SYSTEM DECOMMISSIONING, BOEING REALTY CORPORATION, FORMER C-6 FACILITY, PARCEL C, 19503 NORMANDIE AVENUE, LOS ANGELES (FILE NO. 95-036)

Dear Mr. Mossman:

We have reviewed the "Soil Vapor Extraction Closure Report, Building 2 System" (Report) dated March 2003, prepared by Hargis + Associates. The following information is presented in the Report:

1. The Former Boeing C-6 aircraft manufacturing facility (Site) operated since the early 1940's. A Phase II soil investigation was conducted at the Site and included the collection of over 5,000 soil samples from over 1,500 distinct locations. The Site is divided into Parcels A through D and shallow soil closure has been given for each of the four Parcels. Building 2, located within Parcel C was approximately 1,000,000 square feet and was used for aircraft assembly and a parts storage warehouse. Based on soil analytical results collected in the former Building 2 area, several volatile organic compounds (VOCs) were detected up to 60 feet below ground surface (BGS). Trichloroethene (TCE) was the primary VOC identified at a maximum concentration of 340 milligrams per kilogram (mg/kg). Shallow soil (0 to 12 feet BGS) contamination at Building 2 has been remediated through excavation. The Los Angeles Regional Water Quality Control Board (Regional Board) granted No Further Action for the shallow soils for Parcel C (which includes the Building 2 area) in a letter dated December 6, 2002.
2. Additional soil remediation for deeper soils (between 12 feet BGS and shallow groundwater – about 60 feet BGS) was required. An extensive soil vapor extraction (SVE) system was installed to remediate contamination in deep soils. The SVE system included 11 shallow vapor extraction wells, 21 deep vapor extraction wells, an 800 cubic-foot-per minute vacuum blower, and two 3,000-pound granular activated carbon adsorption vessels. The SVE system at Building 2 operated from November 27, 2001 to November 11, 2002.
3. The SVE system was shut off on November 11, 2002 through February 14, 2003 to conduct rebound monitoring. Vapor rebound concentrations measured with a calibrated organic vapor analyzer (OVA) indicate that the maximum vapor concentrations did not rebound more than one order of magnitude during the 14-week period. Minimal rebound in vapor concentrations show that low TCE mass remaining in subsurface soils is likely contained in finer-grained soil in the unsaturated zone or groundwater where the flux of TCE is physically limited.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption
For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>



Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

BOE-C6-0103534

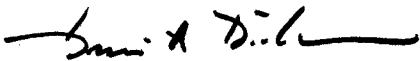
4. "Progress assessment" soil sampling was performed in August and September 2002. Of the five August borings, TCE was detected above reporting limits in one location (maximum concentration of 0.38 mg/kg at 40 feet bgs). Of the four September borings, TCE was detected in only two samples taken from a depth of 50 feet bgs (0.11 mg/kg and 0.027 mg/kg).
5. Two confirmation soil borings were completed on January 10, 2003. TCE was detected in samples taken from a depth of 55 feet bgs (0.37 mg/kg and 0.0067 mg/kg).
6. At this site, a fine grained/clay layer is present at 50 to 60 feet bgs. While concentrations above the soil screening level (SSL) (0.200 mg/kg) still exist in this deeper soil, continued SVE operation is not warranted because of the very low soil permeability, low air extraction rates, and negligible mass recovery. If SVE was unable to mobilize these remaining VOCs, it is unlikely that the VOCs are mobile enough to adversely affect the underlying groundwater quality.

Based upon the Report and the upcoming groundwater remediation project, Regional Board staff concurs with your conclusion that it is appropriate to decommission the SVE system.

Additional deep soil remediation is continuing at the Building 1/36 area (located with Parcel C). This letter does not provide deep soil closure for Parcel C nor groundwater closure for the Site. Boeing is required to continue soil remediation at the Building 1/36 area and continue groundwater remediation at the Site, as required, for the protection and restoration of groundwater resources.

Please call Mr. John Geroch at (213) 576-6737 or Dr. Rebecca Chou at (213) 576-6733 if you have any questions.

Sincerely,



Dennis A. Dickerson
Executive Officer

cc: Cheryl Ross, Central Basin Municipal Water District
Ted Johnson, Southern California Water Replenishment District
Chris Nagler, Watermaster – California Department of Water Resources
Jose Reynoso, Los Angeles County Department of Health Services, Water Well Permits/Well Abandonment
Tim Smith, Los Angeles County Department of Public Works, Environmental Programs Division, Underground Storage Tanks
Captain David Soto, Los Angeles City Fire Department, Underground Storage Tank Department
Scott Zachary, Haley & Aldrich

California Environmental Protection Agency

*****The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption*****

*****For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>*****



Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.